ISSN (print) 0093-4666 © 2014. Mycotaxon, Ltd. ISSN (online) 2154-8889

MYCOTAXON

http://dx.doi.org/10.5248/129.229

Volume 129(2), pp. 229–232 *October–December 2014*

Pseudocercospora styracigena sp. nov. on *Styrax* and *Alniphyllum* from China

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Abstract — A new species, *Pseudocercospora styracigena*, is described, illustrated, and discussed. The type specimen is deposited in HMAS.

Key words — cercosporoid fungi, plant pathogen, *Styrax tonkinensis*

Introduction

Pseudocercospora was established in 1910 by Spegazzini. With more than 1500 described species, it is the largest genus of cercosporoid fungi and is distributed predominantly in tropical and subtropical regions. *Pseudocercospora* species are plant pathogens, causing leaf and fruit spot diseases, blights, and fruit rots (Chupp 1954, Deighton 1976, von Arx 1983, Pons & Sutton 1988), and some species are used for biological control purposes against weeds (Den Breeyen et al. 2006). Therefore, *Pseudocercospora* species are an economically significant fungal group. *Pseudocercospora styracigena*, a new species on leaves of *Styrax tonkinensis* collected from Yunnan Province, China, is described, illustrated, and compared with other cercosporoid species on *Styracaceae*.

Taxonomy

Pseudocercospora styracigena Y.L. Guo & B.J. Li, **sp. nov.** Fig. 1

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Differs from *Pseudocercospora fukuokaensis* by its longer and wider conidiophores, wider conidia, and developed external hyphae.

Type — China, Yunnan Province, Jinghong, on living leaves of *Styrax tonkinensis* (Pierre) Craib ex Hartwich (*Styracaceae*), August 1973, coll. Liu Xi-jin (HMAS 62748, **holotype**).

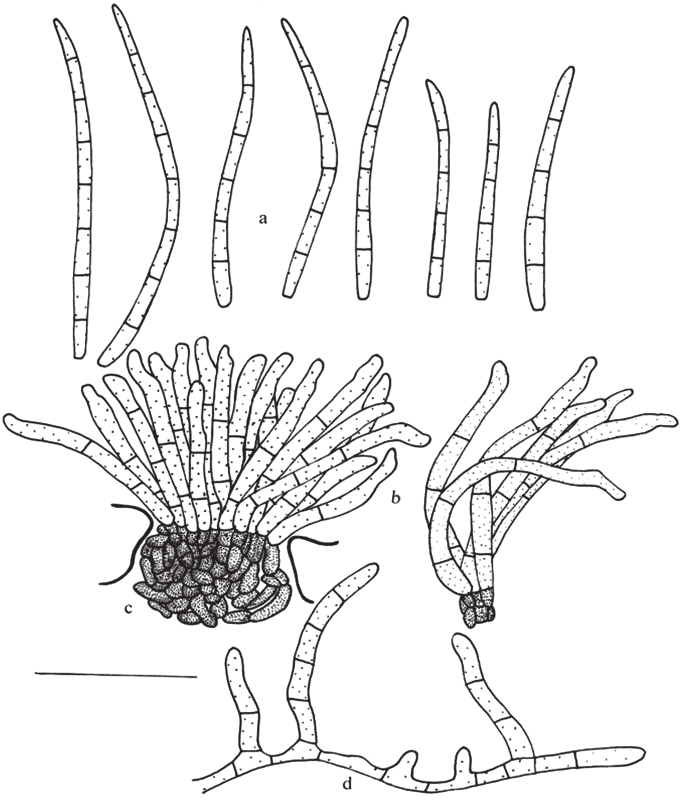

Figure 1. *Pseudocercospora styracigena* (HMAS 62748, holotype).
a. Conidia; b. Conidiophores; c. Stroma; d. External hypha. Bar = 40 μm.

Etymology: Derived from the host genus *Styrax*.

Leaf spots amphigenous, circular to irregular, 0.5–8 mm diam., often confluent, at first gray to grayish brown, later center olivaceous-brown to dark brown, surrounded by a brown to dark brown line on the upper surface, grayish to pale brown on the lower surface. Caespituli amphigenous. Primary mycelium internal; secondary mycelium external, hyphae pale olivaceous to olivaceous, branched, septate, smooth, 2–3.5 μm wide. Stromata substomatal, globose, brown to dark brown, 20–80 μm diam. Conidiophores densely fasciculate or solitary, arising from the external hyphae as lateral branches, olivaceous to moderate olivaceous-brown, uniform in color, irregular in width, straight to curved, branched, geniculate, denticulate, rounded to conical at the

apex, 0–6-septate, sometimes constricted at the septa, 10–110 × 3–5.3 μm. Conidiogenous loci inconspicuous. Conidia cylindrical to cylindrical-obclavate, pale olivaceous to olivaceous, straight to curved, obtuse at the apex, obconically truncate at the base, 2.4–4 μm wide, 3–9-septate, 30–95 × 2.5–5μm.

Additional specimens examined — **China**, **Hunan Province**, Zhangjiajie, on living leaves of *Alniphyllum* sp. (*Styracaceae*), 14 September 1987, coll. Zhao Wen-xia, no. 51 (HMAS 62127, as *Pseudocercospora styracis*); **Yunnan Province**, Jinghong, on living leaves of *Styrax tonkinensis*, 16 July 1976, coll. Han Shu-jin, Zheng Ru-yong, no. 331 (HMAS 62747).

Discussion

Zhao & Guo (1993) previously determined the specimen of *Pseudocercospora styracigena* on *Alniphyllum* sp. from Hunan (HMAS 62127) as *Pseudocercospora styracis* (Chupp) Y.L. Guo & W.X. Zhao [≡*Passalora styracis*], but Crous & Braun (2003: 392) stated that this was a misdetermination of an undescribed species.

Four cercosporoid species have been reported previously on *Styracaceae: Cercospora styracicola* X.J. Liu & Y.L. Guo on *Styrax faberi* Perkins (Liu & Guo 1984); *Passalora halesiicola* U. Braun et al. [≡"*P. halesiae*" nom. inval.] on *Halesia* spp. (Braun et al. 2009, Crous & Braun 2003, Dearness 1941); *Passalora styracis* (Chupp) U. Braun & Crous on *Styrax americana* (Chupp 1954, Crous & Braun 2003); and *Pseudocercospora fukuokaensis* (Chupp) X.J. Liu & Y.L. Guo on *Styrax* spp. (Chupp 1954, Crous & Braun 2003, Guo & Liu 1992, Togashi & Katsuki 1952). *Cercospora styracicola*, *Passalora halesiicola*, and *P. styracis* differ from *Pseudocercospora styracigena* by having different generic characteristics. *Pseudocercospora fukuokaensis* differs from *P. styracigena* by its shorter and narrower conidiophores (5–30 × 2.5–4 μm) and narrower conidia (30–70 × 2–3.5μm) as well as in lacking external hyphae (Togashi & Katsuki 1952, Chupp 1954).

Acknowledgments

This work was supported by the Ministry of Science and Technology of China (No.2013FY110400), CAAS Agricultural Science and Technology Innovation Program and funded by Key Laboratory of Biology and Genetic Improvement of Horticultural Crops, Ministry of Agriculture, China. We are grateful to U. Braun and S.Y. Guo for reviewing the manuscript.

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